

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/029047

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07K1/02 C07K14/505

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, WPI Data, PAJ, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MILLER JUSTIN S ET AL: "Toward fully synthetic N-linked glycoproteins." ANGEWANDTE CHEMIE (INTERNATIONAL ED. IN ENGLISH) 27 JAN 2003, vol. 42, no. 4, 27 January 2003 (2003-01-27), pages 431-434, XP002323695 ISSN: 0570-0833 Scheme 1 the whole document ----- -/--	1-40

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

7 April 2005

Date of mailing of the international search report

21/04/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Cervigni, S

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/029047

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MARCAURELLE LISA A ET AL: "Recent advances in the chemical synthesis of mucin-like glycoproteins" GLYCOBIOLOGY, vol. 12, no. 6, June 2002 (2002-06), pages 69R-77R, XP002323696 ISSN: 0959-6658 Scheme 4 figures 8,9 -----	1-40
X	HOJO H ET AL: "The first synthesis of peptide thioester carrying N-linked core pentasaccharide through modified Fmoc thioester preparation: synthesis of an N-glycosylated Ig domain of emmprin" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 44, no. 14, 31 March 2003 (2003-03-31), pages 2961-2964, XP004414421 ISSN: 0040-4039 figure 4 -----	1-40
X	SHIN Y ET AL: "Fmoc-based synthesis of peptide-(α)thioesters: Application to the total chemical synthesis of a glycoprotein by native chemical ligation" JOURNAL OF THE AMERICAN CHEMICAL SOCIETY 22 DEC 1999 UNITED STATES, vol. 121, no. 50, 22 December 1999 (1999-12-22), pages 11684-11689, XP002323697 ISSN: 0002-7863 the whole document -----	1-40
X	WO 96/34878 A (THE SCRIPPS RESEARCH INSTITUTE; KENT, STEPHEN, B., H; MUIR, TOM, W; DA) 7 November 1996 (1996-11-07) the whole document -----	1-3,8-34
X	WO 02/19963 A (GRYPHON SCIENCES; KOCHENDOERFER, GERD; BOTTI, PAOLO; BRADBURN, JAMES,) 14 March 2002 (2002-03-14) the whole document figure 1C -----	1-3,8-34

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/029047

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9634878	A	07-11-1996	CA	2218620 A1	07-11-1996
			WO	9634878 A1	07-11-1996
			AT	203248 T	15-08-2001
			AU	711451 B2	14-10-1999
			AU	2474095 A	21-11-1996
			DE	69521815 D1	23-08-2001
			DE	69521815 T2	04-04-2002
			DK	832096 T3	01-10-2001
			EP	0832096 A1	01-04-1998
			GR	3036895 T3	31-01-2002
			JP	11508874 T	03-08-1999
			JP	3599346 B2	08-12-2004
			PT	832096 T	30-01-2002
			SI	832096 T1	31-12-2001
			US	6184344 B1	06-02-2001
WO 0219963	A	14-03-2002	AU	7338501 A	22-03-2002
			AU	7338801 A	22-03-2002
			AU	7890501 A	22-03-2002
			AU	8893701 A	22-03-2002
			BG	107590 A	31-12-2003
			BR	0113579 A	17-06-2003
			BR	0113623 A	22-06-2004
			CA	2412277 A1	14-03-2002
			CA	2412278 A1	14-03-2002
			CA	2412279 A1	14-03-2002
			CA	2412298 A1	14-03-2002
			CN	1457257 A	19-11-2003
			CN	1452632 A	29-10-2003
			CN	1454097 A	05-11-2003
			CN	1458846 A	26-11-2003
			CZ	20030678 A3	17-03-2004
			EE	200300089 A	15-02-2005
			EP	1318827 A1	18-06-2003
			EP	1315513 A2	04-06-2003
			EP	1315511 A2	04-06-2003
			EP	1315738 A1	04-06-2003
			HU	0303854 A2	01-03-2004
			JP	2004515471 T	27-05-2004
			JP	2004508338 T	18-03-2004
			JP	2004518621 T	24-06-2004
			JP	2004508383 T	18-03-2004
			NO	20031047 A	08-05-2003
			NO	20031048 A	08-05-2003
			NO	20031049 A	08-05-2003
			SK	2772003 A3	07-10-2003
			WO	0219963 A2	14-03-2002
			WO	0220033 A1	14-03-2002
			WO	0220034 A1	14-03-2002
			WO	0220557 A1	14-03-2002
			US	2003208046 A1	06-11-2003
			US	2003191291 A1	09-10-2003
			ZA	200300314 A	04-02-2004
			ZA	200300315 A	04-02-2004
			ZA	200300659 A	05-03-2004